Web Atlas of Wild Bird Pathology: Unique Tool to Diagnose Disease in Wild Birds and Identify Avian Threats to Public Health

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Spread of avian disease to humans is a threat to public health. For example, avian influenza A viruses are transmitted from animals to humans in two main ways: (1) directly from birds or avian virus-contaminated environments to people, or (2) through an intermediate host, such as a pig. Currently, the H5N1 avian influenza virus is of great concern since a virus mutation allowing human-to-human transmission could result in a global influenza outbreak. West Nile Virus emerged in the US for the first time in 1999. It was identified in wild birds and has now spread throughout all of North, Central, and South America killing birds, humans, and many other species. To assess the public health threat of avian diseases and provide accurate ecological risk assessments for wild bird health, it is necessary to understand the causal agents and mechanisms of infectious and anthropogenic diseases. This Atlas will provide a scientific resource to facilitate accurate diagnosis of disease in birds, assess temporal and spatial trends of disease occurrence, and identify disease threats to human health. Federal and State agencies, academic institutions, and non-governmental organizations have partnered to share data for the basis of this Atlas. Scientists from these institutions are collaborating to standardize terminology to describe pathologic lesions and diagnostic criteria. An Oracle® database was created to manage the data pertaining to individual cases. The types of data include case histories, radiographs, and images of macroscopic and microscopic abnormalities. The database and Web site can be searched by species, location, date, morphological diagnosis, causative agent, potential for transmission to humans, and other single or mixed criteria. Links to pertinent literature citations are provided. EPA and our partners are making the Wild Bird Pathology Atlas available to the global scientific community on the EPA.gov public Web site. Ready access to this information by scientists and educators around the world will facilitate rapid and accurate identification of diseases in wild birds, the first essential step in timely and effective protective measures for both animals and humans.

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